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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,751	07/26/2000	Mary M. Morris	11738.00002	8051

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EXAMINER

SERKE, CATHERINE

ART UNIT	PAPER NUMBER
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3763

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/625,751

Applicant(s)

MORRIS ET AL.

Examiner

Catherine Serke

Art Unit

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the ratio", "the length" and the diameter" in lines 9 and 10. There is insufficient antecedent basis for this limitation in the claim.

Claims 7 and 13 recite "tubes" in line 1. It is unclear if applicant is referring to the tubes recited in claim 1 or additional tubes. If this recitation is a reference back to the tubes of claim 1 then the examiner suggests that ~~the~~ be inserted before tubes.

Claims 12 and 15 recite "row" in line 1. It is unclear if applicant is referring to the rows recited in claims 9 or 14, respectively, or additional rows. If this recitation is a reference back to the rows of claims 9 or 14 then the examiner suggests that ~~of the~~ be inserted before row.

Claim 16 recites the limitation "the distance" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the location" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitations "the ratio", "the length" and "the diameter" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3763

Claim 25 recites "tubes" in line 6. It is unclear if applicant is referring to the tubes recited earlier in the claim or additional tubes. If this recitation is a reference back to the previous tubes then the examiner suggests that ~~the~~ be inserted before tubes.

Claim 26 recites the limitation "the medical catheter" in the preamble. There is insufficient antecedent basis for this limitation in the claim.

Claims 28 and 29 recite "tubes" in line 1. It is unclear if applicant is referring to the tubes recited in claim 25 or additional tubes. If this recitation is a reference back to the tubes of claim 25 then the examiner suggests that ~~the~~ be inserted before tubes.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-6, 8, 11-12, 16-17, 19-21 and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Brucker et al (US Pat# 5,462,521).

Brucker discloses a perfusion tip for a catheter that includes a proximal end having an opening, a distal end defining at least one opening, a drug delivery segment with a longitudinal axis and a length of about 0.1-1.0 cm (see figure 9). The segment has an outside surface with an outside diameter of about 0.64 inches and an inside surface with an inside diameter of about 0.32 inches. The segments has non-tapered tubes having a length of about 0.16 inches that extend radially from the inside surface of the outside surface where the ratio of the length of the tubes to

Art Unit: 3763

the diameter of the tubes is about 5-25. The segment defines a lumen along its longitudinal axis. The tubes are arranged in a row parallel with the longitudinal axis of the segment and there is at least a proximal tube a middle tube and a distal tube within the row. The tubes are equally spaced from each other in the row. The distance from the proximal tube to the distal tube in the row is about 5.5 mm and the distance from the middle tube to the distal end of the lumen of the segment is about 5 mm. The tubes have substantially the same diameters and range in diameter size from about 0.001 to 0.005 inches. The segment has ring bands (30) that may be made from platinum or stainless steel. The catheter is capable of being implantable for more than 24 hours, and is capable of providing fluid containing a therapeutic drug to the target site at a rate of about 2 microliter/hour to 10 microliters/minute.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 7, 9-10, 12-15, 18, 25-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brucker et al.

Regarding claim 25, Brucker meets the claim limitations as described above but fails to include a method including forming the segment, forming the tubes, providing a therapeutic compound and distributing the compound. At the time of the invention, it would have been

Art Unit: 3763

obvious to have carried out the method steps as described above since the steps would have been required to assemble and use the device.

Regarding claims 4 and 27, Brucker meets the claim limitations as described above but fails to include laser or ion beam drilled tubes. At the time of the invention, it would have been obvious to manufacture the tubes using laser or ion beam drilling since it is well known in the art and is used in order to provide enhanced accuracy regarding manufacturing tolerances.

Regarding claims 7, 10, 13 and 18, Brucker meets the claim limitations as described above but fails to disclose the number of tubes as claimed. At the time of the invention, it would have been obvious to have the number of tubes as claimed since perfusion cannula are well known in the art to have a variety of perfusion ports (tubes) depending on the size of the tissue being treated. Adding more tubes to the invention of Brucker would have been done in order to provide greater perfusion to a larger tissue bed.

Regarding claims 9-10, 12 and 14-15, Brucker meets the claim limitations as described above but fails to disclose 4 or 8 rows. At the time of the invention, it would have been obvious to have the number of rows as claimed since perfusion cannula are well known in the art to have a variety of perfusion port arrangements depending on the size of the tissue being treated. Adding more rows to the invention of Brucker would have been done in order to provide greater perfusion to a larger tissue bed.

Claims 22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brucker in view of Lindsay et al (US Pat# 4,863,441).

Art Unit: 3763

Brucker meets the claim limitations as described above but fails to include the tubes being tapered.

Lindsay discloses a venous return cannula that has ports at the distal end that are chamfered (tapered) in order to provide resistance to kinking at the tip.


At the time of the invention, it would have been obvious to incorporate the teaching of chamfered (tapered) ports or tubes of Lindsay into the invention of Brucker in order to provide enhanced resistance to bending.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Serke whose telephone number is 703-308-4846. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 703-308-3552. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2192.

Catherine Serke 
June 5, 2002


BRIAN L. CASLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700